

REMARKS

This response is being submitted in response to the Office Action dated 28 February 2001. Claims 1-11 are pending. Claims 1 to 11 have been amended. Request for reexamination and reconsideration is respectfully requested.

In paragraph 4 of the Office Action, claims 1 and 2 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite by use of the phrase "preferably".

The Applicant respectfully traverses this rejection, but in the interest of expediting prosecution have amended claims 1 and 2. The Applicant submits that the amended claims 1 and 2 overcome these rejections and thus render the objections moot.

In paragraph 5 of the Office Action, claims 1-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by International Publication WO 96/18273. The Applicant will assume all Office Action references to WO 97/18273 in paragraph 5 are typographical errors, and in fact are intended to reference WO 96/18273, "Mobile Access For Cordless Terminal Mobility" by Doe, et al. (Doe). WO 97/18273 is directed to optical density of ink compositions.

The Applicant respectfully traverses this rejection. Applicant respectfully submits that the cited references do not disclose, teach or suggest the invention. Applicant respectfully submits that there are patentable differences between the cited references and Applicant's invention as recited in the claims. Applicant's invention differs from the cited reference in at least the following respects.

The Applicant's method, as recited in claim 1, for example, is directed to maintaining a terminal's location in a communications system. The claimed invention requires, at least that the telephone exchange sends to a node of the intelligent network a service request, the service request including the location information and the identity of the terminal, and the node of the intelligent network adds the location information of the terminal to the subscriber number.

In contrast, Doe does not teach sending a node of the intelligent network the terminal's location information. On the contrary, Doe maintains the terminal's location information is maintained in a home data base (HDB) which the DECT system normally

uses for storing subscriber location. For example, Doe's Figure 1 has an SCP (a Service Control Point of an Intelligent Network) node in it, but Doe does not use the SCP for adding the location information of the terminal to the subscriber number, or maintain the terminal's location in any other manner. Doe does not teach any specific uses for the SCP node but states that INAP (Intelligent Network Application Part) protocol provides intelligence, such as 800 number service or premium rate service (see page 9, line 1).

Thus, Doe teaches that the home data base (HDB) is used for maintaining the terminal's location and the Intelligent Network/SCP is used for applying a special call tariff. These are conventional uses for both the HDB and the SCP. Therefore, there is nothing in Doe's disclosure which would motivate a skilled reader to use the intelligent network/SCP for adding the terminal's location information to the subscriber number, or for maintaining the terminal's location in any other manner as required by the present invention as recited in the claims.

Therefore, in view of the above remarks, Applicant's claim 1 is patentable over Doe. Independent apparatus claims 8 and 10 are also patentable over Doe for similar reasons.

Because dependent claims 2-7, 9 and 11, which depend directly or indirectly from independent claims 1, 8 and 10, respectively, include the features recited in the independent claims as well as additional features, Applicant respectfully submits that claims 2-7, 9 and 11 are also patentably distinct over the cited references.

Nevertheless, Applicant is not conceding the correctness of the Examiner's rejection with respect to such dependent claims and reserves the right to make additional arguments if necessary.

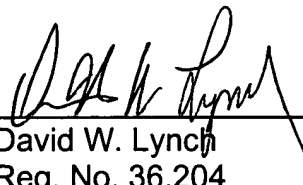
On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

Respectfully submitted,

Altera Law Group, LLC
6500 City West Parkway, Suite 100
Minneapolis, MN 55344
952-912-0539

Date: August 23, 2001

By: _____


David W. Lynch
Reg. No. 36,204

DWL/wba/mar

Appendix A

Marked Up Version of the Amended Claims

Claims 1-11 are marked-up below, as well as showing added claims 12 and 13.

- 1 1. (Amended) Method for location updating of a wireless terminal [(TE)] in a
2 communications system comprising a number of private branch exchanges [(HPBX,
3 VPBX)] and at least one telephone exchange [(EXC)], [and] the communications
4 system being connected to a public integrated services network [(PISN)] and an
5 intelligent network;
6 [in which method]the method comprising:
7 the terminal [(TE) sends (2A-1, 2B-1)] sending, in connection with a call setup, a
8 location updating message to a [PBX] private branch exchange and the [PBX] private
9 branch exchange [sends (2A-2, 2B-2)] sending a call setup message to the exchange
10 [(EXC)];
11 [**characterized** in that, additionally in the method,]
12 the [PBX] private branch exchange [adds (2A-2, 2B-2)] adding the location
13 information and the identity of the terminal [(TE)] to the call setup message;
14 the [EXC sends] telephone exchange sending to a node [(SCP)] of the intelligent
15 network a service request [(2A-3, 2B-3)], the service request including the location
16 information and the identity of [said] the terminal [(TE)]; and
17 the node [(SCP)] of the intelligent network [adds] adding the location information
18 of the terminal [(TE)] to the subscriber number [, preferably to the MSISDN number, of
19 said terminal (TE)].

1 2. (Amended) Method according to claim 1, **[characterized in that]** wherein, in
2 case of an incoming call [(3A-1)] to the terminal [(TE)]:
3 the exchange [(EXC)] sends [(3A-2)] the node [(SCP)] of the intelligent network a
4 service request comprising the subscriber number[, preferably the MSISDN number,] of
5 the terminal [(TE)];
6 the node [(SCP)] of the intelligent network returns [(3A-3)] the location
7 information of the terminal [(TE)] to the exchange [(EXC)]; and
8 the exchange [(EXC)] establishes [(3A-4)] a connection with the [PBX] private
9 branch exchange indicated by the location information of the terminal [(TE)], which
10 [PBX] private branch exchange sets up [(3A-5)] a call with said terminal [(TE)].

1 3. (Amended) Method according to claim 1, **[characterized in that]**
2 wherein at least one Home Private Branch Exchange [(HPBX)] is allocated to each
3 terminal [(TE)], [which] and the [(HPBX)] home private branch exchange notices in case
4 of an internal call that both the calling and the called subscriber are in the area of the
5 same [PBX] private branch exchange, and in this case the [HPBX] home private branch
6 exchange sets up a call without any service request to the intelligent network.

1 4. (Amended) Method according to [any one of the] claim[s] 1,
2 **[characterized in that]** wherein the [PBX (HPBX, VPBX)] private branch exchange
3 reserves for the terminal [(TE)] a roaming number [(CLG#ROAM#)] used as location
4 information of the terminal [(TE)]

1 5. (Amended) Method according to claim 4, **[characterized in that]**
2 wherein a fixed area from a number space of the [PBX (HPBX, VPBX)] private branch
3 exchange [in question] is reserved for roaming numbers [(CLG#ROAM#)] in the
4 numbering plan.

1 6. (Amended) Method according to [anyone of the] claim[s] 1,
2 **[characterized in that]** wherein the terminal [(TE)] is a terminal of the DECT (Digital
3 European Cordless Telephone) system and the identity of the terminal [(TE)] is IPUI
4 (International Portable User Identity) or IPEI (International Portable Equipment Identity).

1 7. (Amended) Method according to claim 6, **[characterized in that]**
2 wherein the method uses DSS.1 signalling protocol and the location information is
3 positioned in a FACILITY or USER_TO_USER information element.

1 8. (Amended) Private Branch Exchange [(PBX)], comprising
2 first interface means for [connection to a] interfacing to an exchange having a
3 Service Switching Point [(SSP)] for interfacing to a service control point of an intelligent
4 network; and

5 second interface means for interfacing to base stations [(DECT -FP)] of a
6 telephone system supporting wireless terminals [(TE)] each terminal having an
7 associated identity;

8 **[characterized in that]** wherein the [(PBX)] private branch exchange
9 [additionally comprises] is adapted to, in response to a location updating of one of the
10 terminals:

11 [means for indicating] assign location information for a [subscriber (TE)] said
12 terminal in question [of a wireless network]; and

13 [means for sending the] send said location information [and the identity of the
14 terminal (TE)] to [an] said exchange [(EXC)] [in connection with a location updating
15 performed by the terminal (TE)] in a message which is suitably formatted so that said
16 Service Switching Point re-sends said location information to said service control point.

1 9. (Amended) Private Branch Exchange [(PBX)] according to claim 8,
2 **[characterized in that]** wherein the location information of a terminal [(TE)] is a
3 roaming number [(CLG#ROAM#)], which is preferably reserved from the number space
4 of said PBX]

1 10. (Amended) Arrangement for location updating of a wireless terminal
2 [(TE)] in a communications system, the arrangement comprising a number of [PBXs
3 (HPBX, VPBX)] private branch exchanges and being in connection with a Public
4 Integrated Services Network [(PISN)] and an intelligent network;

5 [in which arrangement]wherein

6 the wireless terminal [(TE)] comprises means for sending a location updating
7 message [(LOC-UPD-REQ)] in connection with a call setup to a [PBX] private branch
8 exchange and the [PBX] private branch exchange comprises means for sending a call
9 setup message [(SETUP)] to an exchange [(EXC)];

10 [**characterized** in that additionally the PBX] the private branch exchange
11 comprises means for allocating location information to the terminal [(TE)] of the wireless
12 network;

13 the [PBX] private branch exchange comprises means for adding the location
14 information and the identity of the terminal [(TE)] to the call setup message [(SETUP)];

15 the exchange [(EXC)] comprises means for sending the location information and
16 the identity of the terminal [(TE)] to a node [(SCP)] of the intelligent network in
17 connection with a service request [(INVOKE)];

18 the node [(SCP)] of the intelligent network comprises means for adding the
19 location information and the identity of the terminal [(TE)] to the subscriber number[,
20 such as a MSISDN number,] of the terminal [(TE)] .

1 11. (Amended) Arrangement according to claim 10, [**characterized** in
2 that] wherein the location information of the terminal [(TE)] is a roaming number
3 [(CLG#ROAM#)] allocated by the [PBX] private branch exchange.

1 12. (New) A method according to claim 1, wherein the subscriber
2 number is an MSISDN number of said terminal.

1 13 (New) A private branch exchange according to claim 9, wherein the
2 roaming number is reserved from the number space of said private branch exchange.